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AFLAS® Technical Bulletin

Adhesive Recommendations

AFLAS® compounds are used in many applications where a permanent durable bond is required. The AGC Exton Technical Center has investigated many of the commercially available adhesive bonding agents and has found the following two products to be the most universally suited:

Megum® 3290-1...A Dow product that is MEK solvent based.

Chemlok® 8116....A Lord Corporation product that is aqueous based.

With both products, the application method recommended by the vendor should be strictly followed. Standard press cure and post cure conditions should be used for the AFLAS compound. See testing protocols below.

In use, the substrate is coated in the vendor recommended fashion and the un-vulcanized AFLAS® compound is molded/press cured over the treated substrate surface. The finished part is then post cured.

Bonding AFLAS can also be optimized by including certain components in the AFLAS compound. Best results for bonding to passivated steel have been obtained with a combination of Celite® 350 diatomaceous earth (approx. 25phr), aluminum oxide (approx. 5phr) and calcium oxide (approx. 3phr). 1 to 3phr of zinc stearate is the preferred process aid in these systems. Other components in the AFLAS® compound formulation may either hinder or enhance bonding. Please call the AGC Exton Technical center (Tel# 610.423.4316) to obtain more detailed data and technical assistance for your unique AFLAS® applications.

Testing protocols:

- Bond testing was conducted using ASTM D 429-04 Method "B".
- No primers were used on the substrate prior to the application of the adhesives.
- Samples were press-cured at 170°C (338°F) for 20 minutes, post-cured at 200°C (392°F) for 4 hours.
- Substrates tested consisted of coarse and fine grain phosphate steel and SUS 316 stainless steel.

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